

REVISION OF THE AUSTRALASIAN SPECIES OF *ANILARA*
(FAM. BUPRESTIDAE) AND *HELMIS* (FAM. DRYOPIDAE),
WITH NOTES, AND DESCRIPTIONS OF OTHER
AUSTRALIAN COLEOPTERA.

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(Five Text-figures.)

[Read 28th April, 1926.]

Revision of the Australasian Species of Anilara Thoms. (Fam. Buprestidae).

The generic name *Anilara* was first used by Deyrolle, without definition, and was attributed to that author in various catalogues, e.g. Gemminger and Harold, 1869, Saunders' Cat. Bup., 1871, Masters' Cat. Aust. Col., 1886. Thomson, however, was the first to publish a short characterization of the genus in 1879, and this has been extended in greater detail by Kerremans (Gen. Insect., 1902). Its nearest affinities are with *Anthaxia*, *Notographus*, *Pseudanilara* and *Neocuris*, consisting as it does of small, inconspicuous insects of flat, oblong form, generally of obscure colour. There is thus considerable confusion of nomenclature.

Anthaxia may be at present excluded from the Australian list by the form of the prosternal process (acutely produced).

Neocuris may be distinguished by (1) flat and excavate head, (2) bisinuate base of pronotum, (3) short elytra.

Pseudanilara has been clearly described by its author, whose concluding paragraph states: "Ce genre diffère du genre *Anilara* par sa tête plus large, la disposition de ses cavités antennaires, son prothorax bisinué à la base, et le dernier segment de l'abdomen ni impressionné ni caréné".

The distinction of *Notographus* from *Anilara* is not so clear, and it is not surprising if one or more of Dr. Obenberger's species of *Notographus*, so inadequately described in *Entomologische Blätter*, 1922, p. 72, should be found identical with species described as *Anthaxia* by Macleay.

In this revision I have considered *Notographus* as distinguished from *Anilara* by (1) antennary cavities surmounted by a feeble oblique carina, (2) pronotum subcordate, in general with strong medial sulcus, and bisinuate base. Thus *Anilara* may be separated from the above allies by the nearly straight base of pronotum.

The species occur on foliage and may be taken by beating. The commonest species in Eastern Australia, *A. (Melobasis) obscura* Maccl. can often be taken in considerable numbers by shaking or beating dead eucalyptus boughs. I have specimens taken in company at St. Mary's, near Sydney, that vary in size from 4 to 6½ mm. in length. In the "*Genera Insectorum*" Kerremans recorded 18 species of the genus, excluding Macleay's species which are placed under *Anthaxia*. Of the above 18 species, three were non-Australian; the exceptions being two from Africa and one from Brazil.

The following is the result of my investigations:

Anthaxia cupripennis Chev. (*Silb. Rev. Ent.* 1838). This species is repeated in Masters's Catalogue, although Saunders, in his Catalogue of 1871, notes its synonymy with *Cisseis cupripennis* Guér. Type in Coll. Saunders.

A. (Anthaxia) adelaidae Hope, published in 1846, is thus the first described *Anilara*.

Mr. Blair has kindly lent me a specimen from the Saunders Collection that has been compared with the type—the latter courteously brought to London by Professor Poulton. It is a short, wide species, with a convex, widely rounded prothorax, of a colour that Macleay called brassy-black, i.e. nearly black with a metallic sheen. Other examples from South Australia are distinctly bronze. Sixteen examples are before me from New South Wales, Victoria, South Australia and Western Australia. Dimensions, 3.4 mm. long.

In 1871 Macleay described amongst the "Insects of Gayndah", *Melobasis obscura*, *Anthaxia obscura*, *Anthaxia cupripes*, *Anthaxia purpureicollis* and *Anthaxia nigra*, which he followed up in 1888 by describing *Anthaxia uniformis* and *A. purpurascens* in the "Insects of King Sound".

I have already pointed out in my Revision of *Melobasis* (*Trans. Ent. Soc. Lond.*, 1923, p. 70) that the first of these is an *Anilara* with numerous synonyms and a wide distribution. The second is an *Anilara* that, requiring a new name, I called *A. macleayi*, but which I now find is *A. viridula* Kerr. The following three, as noted by the author, "differ materially from the typical form", a form that has had the distinction of being described under six different genera—at least as regards *A. cupripes*. It is possible that all three are but different forms of the same species. Allowing for a slight doubt on this point they may be for the present considered as two species, A and B, with the following synonymy:

A. Pseudanilara (Anthaxia) cupripes MacL. = *Melanophila (Melobasis) laticeps* Kerr. = *M. australasiae* Kerr. = *Neocuris dilaticollis* Blkb. = *Neotorresita achardi* Obenb.

B. Pseudanilara (Anthaxia) purpureicollis MacL. = *Anthaxia nigra* MacL. var. = *Pseudanilara roberti* Théry.

When I published my note on A in the "Revision of *Melobasis*" I had not seen Mons. Théry's type of *Pseudanilara*, and, having little knowledge of the genus *Melanophila*, followed Kerremans' nomenclature. Lately, however, Mons. Théry has very courteously sent me his types of *Anilara* and *Pseudanilara*, together with examples of *Melanophila* from Europe and America. Comparing the type of *P. roberti* Théry with Macleay's two species (B *supra*) I find the darker colour of *nigra* to be the sole distinction between them.

Dr. Obenberger's excellent figure, together with his detailed description, leaves no doubt as to the identity of *Neotorresita achardi* with A, while he gives six characters in which the genus differs from *Melanophila* (*Sbornik Entom.*, 1924, p. 19). These certainly remove this insect from the palaearctic genus to which Kerremans referred it.

Anthaxia uniformis MacL. seems to be a moderately common species in Western Australia. Thirteen examples are before me that I have compared with the type. According to my definition above it is a *Notographus*; and is probably identical with the insect so laconically described by Obenberger as *N. thomsoni*. My examples vary considerably in size (though otherwise alike) from 6 to 3½ mm. long. They are of the colour given by Macleay as "brassy-brown sub-nitid", old spirit specimens losing their gloss. As with other western insects, I find "Sea Lake", Victoria (Goudie), Murray River, S.A. (Zietz) and Port Darwin (G. F. Hill)

amongst the labels, while the western examples range from Albany to King's Sound. *A. purpurascens* MacL. is a true *Anilara*, not happily named, since the colour of the type is a clear, brassy bronze without a trace of purple; the pronotum is more convex than usual, the sides nearly straight in the middle, lightly narrowed in front and behind, its disc (also head) closely and rather strongly punctate; neither pronotum nor forehead sulcate. Three examples have been compared with the type, two from Western Australia, the third from Barossa, South Australia, showing a slight variation of form.

In 1879 Thomson defined the genus and described two species. *A. platessa* Thoms., so far as it is possible to determine from its brief description, is probably the very common species *A. (Melobasis) obscura* MacL. I find Thomson's name attached to specimens on some traditional authority. The locality specified by Thomson is "New South Wales. Adelaide" and since, amongst the sixty-six specimens before me, I find examples labelled Gayndah (Q'land), N. S. Wales (many districts), Victoria and South Australia, the author's vague geography may be taken literally. *A. deyrollei* Thoms. is impossible to determine from description. Its colour, dimensions and locality suggest its identity with *A. adelaidae* Hope or *A. planifrons* Blkb. *A. deyrollei* Kerr. (*nec* Thoms.), of which two examples have been sent me, is clearly *A. obscura* MacL.

In 1887 Blackburn described *A. planifrons*, and four years later added *angusta*, *laeta*, *subcostata* and *soror*. *A. planifrons* Blkb., of which two cotypes are before me (from Port Lincoln and Moonta respectively), is a near ally of *A. adelaidae* Hope, from which it differs in (generally) smaller size and the absence of the frontal sulcus. I consider it distinct, though I have three examples of *adelaidae* as small as *planifrons*. *A. soror* Blkb., of which I have examined the type, is merely a large ♀ of *A. obscura* MacL. *A. laeta* Blkb. is another close ally of *adelaidae* of which two examples from South Australia (Macleay Mus.) are before me. I find the special characters noted by the author, including the "abdominal carinules", and consider it a valid species. A minute frontal sulcus is visible.

A. angusta Blkb.—Five examples are so labelled in the National Museum, Melbourne, of which one with Mr. French's label is the presumed type. Twenty-one other examples are before me, chiefly from Victoria, but others from Southern New South Wales (Moruya) and South Australia. This species is somewhat like *A. obscura* MacL. so far as its upper surface is concerned, but generally narrower, with the prothorax less wide in the middle and more evidently narrowed behind. Its clear distinction from Macleay's species lies in the structure of the under surface, lucidly described by Théry under *A. cyphogastra* as having a "saillie intercoxale du premier segment abdominal portant une plaque noir bombée, mate, lisse, parfaitement délimitée dans son pourtour et tranchant par sa couleur avec les parties avoisinantes". Blackburn merely notes the hinder segments as "almost laevigate". This character ("plaque noir") also appears in *A. longicollis* Théry, though unnoted in the description, and (*vide* Mr. K. G. Blair) in *A. cuprescens* Kerr., of which the author's words "pronotum relativement plus long, les côtés . . . non arrondis mais subanguleux" apply to some examples more strongly than to others.

I consider the following synonymy established: *A. angusta* Blkb. = *A. cuprescens* Kerr. = *A. cyphogastra* Théry.

A. subcostata Blkb. is a widely ovate species, generally with an oblique subcostate impression extending from the shoulder, and a short subobsolete costa between this and the suture; but in some examples both are rather obscure.

Mr. A. H. Elston has kindly compared examples with the type for me. It is a distinct species that I have seen only from South Australia. This leaves four of Blackburn's species as valid.

In 1898 Kerremans described six species, and two more in 1902, without any comparison with previously described species—except in one instance, in which his note on *A. sulcicollis* “a peu près de la taille de *An. Adelaidina* Hope” (*sic*) is inaccurate in nomenclature and wide of the mark as a diagnosis (if intended for *A. adelaidae* Hope).

I since learn from Mr. Blair that a species which I determine as *Notographus yorkensis* Obenb. has been labelled with a MSS. name by Deyrolle, and also as *A. adelaidina* Hope for specimens in the British Museum, and Kerremans may be referring to this. I cannot find that this latter species has been named previous to Dr. Obenberger's tabular précis of his *Notographus*, but it is, I consider, a true *Notographus*, differing from *A. sulcicollis* Kerr. in having the eyes more closely converging towards the vertex, a strongly cordiform prothorax, wider shoulder outline, and a flatter and more uneven elytral surface. It is a common Queensland insect, taken in some quantity by Messrs. Illidge and Hacker at Tambourine Mountain and the National Park, as well as from North Queensland. Thirty examples are before me. Of *A. sulcicollis* Kerr. I have examined three examples. One, compared with type by Mr. Blair, is from the Richmond River, N. S. Wales, the other two are from Queensland. The metallic patch, near apex of elytra, on an otherwise velvet-like surface, is characteristic.

A. sulcipennis Kerr.—An example from the British Museum labelled Rockhampton, and with Kerremans' type* label is before me, also three examples from the Macleay Museum labelled N.S.W. and Rope's Creek respectively. The base of the pronotum is very feebly sinuate and the elytral apices are more sharply rounded than usual. It is a valid species and I think a true *Anilara*.

A. nigrita Kerr., from a specimen sent by Mr. Blair, is very near the *cuprescens-angusta* species, but is without the abdominal “plaque noir”. As I find this to be a specific, not merely a sexual character, *nigrita* for the present must be considered as valid.

A. uniformis Kerr.—An example before me bears Kerremans' type label, and is a little puzzling. It is without the “plaque noir”; the form is very much that of *A. australis* Théry (from Gayndah) with less widely rounded pronotum than is commonly seen in *A. obscura* Macl., but more so than in *A. anthaxioides* Théry which, moreover, is of different colour and surface sculpture. I find an example taken by Mr. Lea at Gayndah exactly corresponds with this, while the gradations of form from this to the more typical *obscura* are to be seen in the long series before me, the colour of which is often dark in old examples. I cannot do otherwise than consider (1) that *A. uniformis* Kerr. = *A. australis* Théry and (2) that both are probably varieties of *A. obscura* Macl. *A. viridula* Kerr. = *Anthaxia obscura* Macl. so that the name *A. macleayi* suggested by me (*Trans. Ent. Soc. Lond.*, 1923, p. 70) is redundant and Kerremans' name now stands. A specimen compared with type of *viridula* has been sent me. The locality, Tasmania, is probably a mistake. I have not seen an *Anilara* from Tasmania in any Australian collection. *A. macleayi* is only known from Queensland and northern New South Wales.

* Kerremans labelled all the specimens of his type series as “type”, so that, in many cases, no one example is specially indicated as such.

A. tasmanica Kerr. = *A. sulcicollis* Kerr., so far as I can judge from description, together with Mr. Blair's note, "very close" (to *sulcicollis* K.) "but does not appear to have the shiny sutural patch, though our unique specimen is very dirty—head with similar antennal cavities and the eyes more approximate above than in most". Locality again doubtful.

A. convexa Kerr.—I have only an outline drawing of this which, together with the description, seems to show a valid species distinguished by the combination of black colour, suboval form and the pronotum widest at base. Thus of the eight described by Kerremans, I consider four as valid. There remain only the seven species described in 1910 by Théry, together with his *Pseudanilara*. I have to thank this entomologist for his great courtesy in sending me his types for examination as well as for his helpful correspondence. To entrust his types in the long overseas journey to me was an act inspired by the true scientific spirit—the desire for accurate knowledge. Four of these are certainly valid. *A. anthaxoides* Théry is readily distinguished by its bright violet colour, minute surface sculpture and the prothorax widest at base, arcuately narrowed to the front, the prosternum more convex than in *obscura* Macl., the punctures of the underside coarser and more distant. Twelve examples are before me from New South Wales, Victoria, South Australia (Brit. Mus.), Western Australia (A. M. Lea and W. D. Dodd).

A. longicollis Théry is rather close to *angusta* Blkb. Both have the "plaque noir", but in *angusta* this is quite laevigate and extends the full length of the first segment, while in *longicollis* I can make out some fine punctures thereon, and it does not quite reach the margin of the first segment. The longer prothorax, with its sides evenly and lightly widened, widest at middle, is its chief distinction. Twenty-three examples have been examined from New South Wales, Victoria, South Australia (Ooldea, A. M. Lea), but the majority come from Western Australia where it is common.

A. antiqua Théry is a very distinct species from Townsville (Q.) having a nearly trapezoidal pronotum with straight sides, very acute posterior angles, the elytra oval, wider than prothorax. The type is the only specimen I have seen.

A. acutipennis Théry, if correctly localized, is the third Buprestid known from New Zealand, except for the very doubtful records of Kerremans. It is described from a single damaged specimen "en assez mauvais état". I think its locality requires confirmation.

A. deplanata Théry is quite a typical *A. obscura* Macl. and *A. australis* Théry is (*vide supra*) probably a variety of that species.

A. cyphogastra Théry (*vide supra*).—Dr. Obenberger (*Zeitsch. f. wiss. Insektenbiologie*, 1917, p. 33) has described one species, *A. hoscheki*, from the Aru Islands from a unique specimen in a private collection. This is said to be 9.5 mm. long and is larger than and clearly distinct from any of the Australian species.

The foregoing notes thus record sixteen valid species, including the single *acutipennis* Théry from New Zealand but excluding *Notographus* (*Anthaxia*) *uniformis* Macl. = ? *N. thomsoni* Obenb. The following are new.

ANILARA OLIVIA, n. sp.

Oblong, rather wide and convex, subnitid olive-green throughout, the sides of pronotum and apical declivity of elytra brighter in colour than the rest, but without defined metallic area.

Head moderately convex, except for a feeble depression on anterior part of forehead, sparsely pilose, minutely and densely punctate; eyes large, not prominent, inner margin lightly converging behind, the interspace being about one-third of total width. *Prothorax* arcuate-emarginate at apex, anterior angles (seen from above) acute; base feebly bisinuate; base wider than apex (about 4:3); widest behind middle, thence arcuately converging in front and sinuately narrowed behind, posterior angles sharply rectangular; medial channel very lightly impressed, a large shallow depression on each lobe near base; disc alveolate-punctate, the punctures fine in middle, growing larger laterally. *Scutellum* very small, circular. *Elytra* of same width as prothorax at base, more convex than usual; the basal margin emphasized by a transverse sulcus immediately behind it, apices separately rounded and finely serrulate; surface alveolate-punctate, with slight signs of transverse striae on basal half. *Prosternum* convex, with wide obtuse process at apex, metasternum deeply sulcate, sparsely pilose; sternal area finely and densely punctate, abdomen with larger, shallower punctures. *Dimensions*, 6.5-7 × 3 mm.

Habitat.—Queensland: Johnstone River (H. W. Brown), in South Australian Museum.

Four examples examined show a species that could be confused only with *A. macleayi* Cart., but is really very different. The following comparison will make this clear:

<i>olivina</i> .	<i>macleayi</i> .
<i>Size</i> .—6.5-7 mm. long.	4.5 mm. long.
<i>Colour</i> .—Almost concolorous.	Head and sides of pronotum bright green, elytra with sub-circular metallic area.
<i>Pronotum</i> .—Widest before middle, strongly sulcate.	Widest behind middle, very lightly sulcate.

The sculpture of *olivina* is stronger and more clearly defined, while in form it is more robust and convex.

Type in South Australian Museum.

ANILARA AERARIA, n. sp.

Subcylindric, nitid brassy-bronze above, dark bronze beneath.

Head with a finely impressed sulcus between eyes, these rather widely separated, their inner margins parallel, minutely and closely punctate. *Prothorax*: Apex and base nearly straight, sides rather widely rounded, widest in front of middle, all angles rather wide, the posterior subrectangular; disc regularly and very finely punctate, with some tendency to transverse striolation. *Scutellum* triangular with rounded sides. *Elytra* as wide as prothorax at base, sides parallel for the greater part, with two subcarinate impressions, the first oblique from the shoulders to near apical declivity, the second near sides, forming a pseudo-margin, apical margins minutely serrulate. Beneath finely punctate, prosternal process widely triangular at apex, first two apical segments soldered, the suture scarcely visible. *Dimensions*, 4.5 × 1.8-2 mm.

Habitat.—Western Australia: Geraldton and Mullewa (W. D. Dodd), in South Australian Museum.

Two examples (the sexes) examined. The species is nearest *A. purpurascens* Macl. in colour but differs as follows:

<i>aeraria</i> .	<i>purpurascens</i> .
More convex and parallel.	Flatter and more oval.
Head finely sulcate on vertex.	Widely sulcate on front half only.
Sculpture finer.	Coarser.
Pronotum—Sides well rounded, widest before middle.	Sides feebly widened, widest near base.
Elytra with two well marked carinulae.	With slight humeral keel.

Type and paratype in South Australian Museum.

(N.B.—On removing the specimens from the cards by immersion in hot water I find that the brassy sheen has been unfortunately changed to a darker bronze.—H.J.C.)

Table of Australasian Species of Anilara.

1. Colour obscure bronze	2
Colour black	11
Colour nitid brassy-bronze	14
Colour green or largely so	15
2. Elytra with subcostate impressions	<i>subcostata</i> Blkb.
Elytra without such	3
3. Widely ovate, pronotum convex, its sides widely rounded	4
Elongate oblong, pronotum not as above	5
4. Vertex of head with medial sulcus	<i>adelaidae</i> Hope
Vertex of head without medial sulcus	6
5. Abdomen bearing a convex black plate between coxae	7
Abdomen without such plate	8
6. Colour purple-bronze, abdomen strongly carinulate	<i>laeta</i> Blkb.
Colour dark bronze, abdomen not as above	<i>planifrons</i> Blkb.
7. Pronotum longer, widest in front of middle	<i>longicollis</i> Théry
Pronotum shorter, widest at middle	<i>angusta</i> Blkb.
8. Sides of pronotum nearly straight	<i>antiqua</i> Théry
Sides of pronotum rounded	9
9. Pronotum widest at base	<i>anthaxioides</i> Théry
Pronotum widest at middle	10
10. Eyes converging behind, elytra with metallic spot on suture	<i>sulcicollis</i> Kerr.
Eyes parallel, elytra without metallic spot	<i>obscura</i> MacI.
11. Elytra dentate at apex	<i>acutipennis</i> Théry
Elytra rounded at apex	12
12. Elytra having sinuous sulci	<i>sulcipennis</i> Kerr.
Elytra not sulcate	13
13. Pronotum widest at middle	<i>nigrita</i> Kerr.
Pronotum widest at base	<i>convexa</i> Kerr.
14. Form subcylindric, each elytron with two carinules	<i>aeraria</i> , n. sp.
Form oval and depressed, elytra with short humeral carinule	<i>purpurascens</i> MacI.
15. Form flat, elytra with black metallic patch	<i>viridula</i> Kerr.
Form convex, elytra without such patch	<i>olivia</i> , n. sp.

Synonymy.

A. (Anthaxia) adelaidae Hope = ? *deyrollei* Hope.

A. (Melobasis) obscura MacI. = *platessa* Thoms. = *soror* Blkb. = *uniformis* Kerr. = *deyrollei* Kerr. (*nec* Hope) = *deplanata* Théry = ? *australis* Théry.

**A. (Anthaxia) obscura* MacI. = *viridula* Kerr. = (nom. nov.) *macleayi* Cart.

A. angusta Blkb. = *cuprescens* Kerr. = *cyphogastra* Théry.

A. sulcicollis Kerr. = ? *tasmanica* Kerr.

* Since I now find that *viridula* Kerr. is the same insect as Macleay's *Anthaxia obscura*, my suggested name *macleayi* should be sunk as redundant, and the species known as *A. viridula* Kerr.

Maoriella novae-zeelandiae Obenb. = *Neocuris* (*Buprestis*) *eremita* White.

Dr. Obenberger (*Sbornik entom. Mus. Praze*, 1924, p. 20) has erected a new genus and gives a new specific name to the well known New Zealand species which, described as *Buprestis eremita*, was placed by Kerremans (*Gen. Ins.*) under *Neocuris*.

Lately, at the request of Dr. R. J. Tillyard, I have examined several specimens of this insect and find that its nearest affinities are with *Neocuris* and *Pseudanilara*, the elytra not quite covering the apex of abdomen and the structure of the antennae incline to the former, while the general facies is very near the latter genus. It would seem out of place in the group "Mastogenini sensu Kerremans".

Théry has recently (*Mem. Ent. Soc. Belg.*, 1910) added a third member, *Anilara acutipennis*, to the scanty Buprestid population of New Zealand. Since, however, this is represented only by a single example "en assez mauvais état", I think his locality requires confirmation by the discovery of further material.

Stigmodera mastersi MacL. = *S. hoblerae* Cart. The latter name must disappear. I find that I misdetermined this species.

Chrysobothris cupriventris Thoms. = *C. regina* Kerr. Mons. Théry writes to me that, having seen the type of Kerremans' species, he identifies it as Thomson's species from Brazil—an erroneous label no doubt caused this.

Stigmodera bella Saund. var. *dixonii*, n. var.—I have received from Mr. J. Dixon, of Melbourne, a variety of *S. bella* Saund. that deserves a name, since it appears to be well distributed and of more or less constant pattern. The usual wide dark basal fascia is replaced by a narrow, *post-basal* fascia shaped like the head of a wide pick-axe, the short handle of which extends over the scutellum, the points of the "pick" not extending to the sides, leaving a yellow area behind the narrow dark basal margin. There is also an example in the Macleay Museum, labelled "Brisbane", and Mr. Deuquet has sent me one from Wardell (N.S.W.) in which the dark post-basal area is wider and extends to the sides.

Chalcophora (*Chrysodema*) *subfasciata* Cart.—Mons. Théry also points out that this species is a true *Chalcophora*, a genus now to be added to the Australian list.

PSEUDANILARA DUBIA, n. sp.

Narrowly oblong, uniformly obscure bronze above, subnitid beneath.

Head rather wide, eyes widely separated, the inner margins parallel, the outer margins prominently convex, surface as also that of pronotum and elytra finely alveolate-punctate, without sulcus or impressions. *Prothorax*: Apex and base bisinuate and almost equally wide, anterior angles acutely produced, sides strongly and evenly rounded, widest at middle, lightly sinuate before the defined obtuse posterior angles, disc without medial impression or fovea. *Scutellum* minute, round. *Elytra* subdepressed, distinctly wider than prothorax at base, sides parallel for the greater part, widely rounded at apex, margins not apparently serrulate. *Prosternum* moderately convex, its apical process subtruncate, metasternum sulcate, whole underside glabrous and very lightly punctate. *Dimensions*, ♂ 3×1 (+) mm., ♀ 4×1.5 mm.

Habitat.—Queensland: Ipswich (Queensland Museum); Western Australia: Beverley (J. W. O. Tepper), in South Australian Museum.

Two ♂ from Beverley and two ♀ from Queensland are, I consider, conspecific. I am doubtful as to the true generic position, since the rather strongly bisinuate base of pronotum excludes it from *Anilara*, the widely separated and parallel eyes, the noncordate and nonsulcate pronotum exclude it from *Notographus*. The

antennary cavities are only visible from below and are without any associated carina. On the whole it would seem to be most at home in *Pseudanilara*.

Type in Queensland Museum.

PSEUDANILARA PILIVENTRIS, n. sp.

Oblong, whole surface subnitid coppery bronze, pilose; the underside especially densely clothed with long recumbent silvery hair.

Head not wider than pronotum at apex, eyes prominent, space between eyes wide, their inner margins lightly converging behind, surface thickly pilose. *Prothorax*: Apex nearly straight, anterior angles wide, base strongly bisinuate, posterior angles acute and subfalcate; widest at base, sides lightly and arcuately narrowed to apex, disc alveolate-punctate, coarsely so at sides, sparsely pilose. *Scutellum* small and circular. *Elytra* as wide as prothorax at base, sides subparallel (feebly widened behind middle), margins of basal half rather strongly serrulate, surface rather coarsely and deeply alveolate-punctate, with clothing of white hair, sparse near suture, thicker towards sides. Underside coarsely alveolate-punctate, the punctures of the pronotum deep, square and with pronounced cell walls, those of the abdomen much shallower, though scarcely smaller, the hair especially dense on the abdomen. *Dimensions*. 4.5×1.5 mm.

Habitat.—South Australia: Lucindale (A. M. Lea).

A single ♀ example before me differs from the four described species in smaller size, colour, surface sculpture and clothing.

Type in the South Australian Museum.

GERMARICA Blkb.—The original description of the antennae of the genotype *G. casuarinae* Blkb. (Text-fig. 1) would seem to require considerable modification, unless the insect described from South Australia is widely different from the common species generally known under this name, of which I have numerous examples ranging from South Queensland to Victoria and Tasmania—obtained by beating certain Casuarine trees in summer. The antennae, when at rest, extend well beyond the head to about one-third the length of prothorax and, while the apical seven joints are widened and serrated, there is nothing that even remotely resembles the antennal club of *Syndesus* in the Lucanidae, as suggested. Dr. Obenberger has recently added two species, *G. blackburni* and *G. carteri* (*Entomologische Blätter*, 1923, p. 114), of which I have determined the first, and possibly the second, both from Queensland. I find two undescribed species amongst some Buprestidae sent from the South Australian Museum as follows:

GERMARICA ELATA, n. sp.

Oblong, less than three times longer than wide, subnitid bronze black, glabrous.

Head convex, much narrower than the apex of prothorax, eyes not prominent, space between eyes about the width of one eye; sparsely punctate. *Prothorax* tumid, apex and base straight, sides widely rounded, widest in front of middle, here wider than elytra; anterior angles very wide, posterior well defined and obtuse, disc strongly, transversely strigose and finely rugose; antennae nearly extending to base of prothorax, apical seven segments serrated, but not widely so. *Scutellum* rather large, triangular with rounded sides. *Elytra* moderately convex, as wide as prothorax at base, sides parallel, basal margin emphasized by transverse sulcus immediately behind it; disc covered with fine distinct punctures on a surface that is densely and microscopically punctate. Underside minutely

regularly punctate, the punctures round and not closely placed, the pronotal punctures more evident, the apical segments of abdomen sublaevigate. *Dimensions*, 3 (+) \times 1.3 mm.

Habitat.—Queensland: Bowen (in South Australian Museum).

A single ♀ example bearing Mr. A. Simson's number label and the words "Bowen, on mimosa", is relatively wider and more strongly sculptured than *G. blackburni* Obenb., the prothorax of which is widest in posterior third, with the base angles rectangular.

Type in the South Australian Museum.

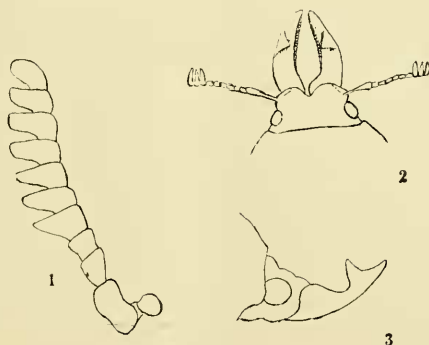
GERMARICA ABBREVIATA, n. sp.

Oblong, dull bronze-black. The head and pronotum very similarly formed to that of the former species; the pronotum less tumid, the sides evenly rounded, widest at middle, the posterior angles less widely obtuse. The sculpture of the whole upper surface is closer and coarser than in *G. elata*; that of the elytra showing a slight tendency to transverse rugosity. The underside more densely and strongly punctate. *Dimensions*, 2 (+) \times 1 (vix) mm.

Habitat.—Western Australia (Blackburn Coll.).

A single example is wider and shorter than usual in the genus, but it is certainly congeneric with *G. elata*.

Type in South Australian Museum.



Text-figures 1-3.

1. Antenna of *Germarica casuarinae* Blackb. ♀ (\times 60).
2. *Lamprima imberbis*, n. sp. Head, seen from above.
3. *Lamprima imberbis*, n. sp. Head, seen from side.

Family Lucanidae.

LAMPRIMA IMBERBIS, n. sp. (Text-figs. 2-3.)

Dark coppery-bronze, mandibles, oral organs, tarsi, underside of tibiae and greater part of antennae metallic-blue, the flabellae opaque grey-brown.

Head: Eyes rather prominent, frontal area with large round punctures, well separated, without rugosity; antennae more slender, the flabellae shorter than in *L. varians* Germ.; mandibles long (about 4 mm.) *entirely hairless on both sides*, very nitid and narrow as compared with *varians*, rather acutely pointed at apex, each with a single conical, vertical tooth on upper margin, the lower internal margin nondentate; interior surface pustulose, some of these pustules showing from above as a close serration on lower margin; external surface sparsely punctate. *Prothorax* much more coarsely punctate than in *L. varians*, the

punctures large, round and more sparse, especially towards sides and apex; lateral fovea very large, almost filling the lateral angle. *Scutellum* semicircular, bearing about 8 large punctures. *Elytra*: The punctures smaller than on pronotum, but much larger than the corresponding punctures on *varians*; mesosternal process sharply carinate (in *varians* rather widely convex); everywhere on underside, pro-, meso- and metasternum, abdomen and legs the punctures are coarser than the corresponding punctures in *varians*. *Dimensions*, including mandibles, 22×9 mm.

Habitat.—New South Wales: Dorrigo (W. Heron).

A single male in the South Australian Museum is abundantly distinct from the well known *L. varians* Germ., with which, in dimensions and colour, it has the nearest affinity. The smooth, metallic mandibles entirely without hair, alone separate it from its congeners, the single, prominent, vertical tooth, as well as the unusual shape of the mandibles would also easily differentiate this species; while the punctures are everywhere larger and more pronounced than in Germar's species.

Type in the South Australian Museum.

Dryopidae.—The genus *Dryops* of Olivier (1791), being one year prior to *Parnus* of Fabricius, gives its name to an interesting family, which since 1864, when the Rev. R. L. King described seven species, has been little noticed by Australian entomologists. Since that date three species of *Helmis* have been added to our list, *H. tasmanica* Blkb., *H. simsoni* Grouv., and *H. v-fasciata* Lea.

These beetles are found in fresh water, generally attached to submerged sticks or stones, for which their unusually strong claws are adapted. They are unable to swim, are sluggish in their movements and, being often covered with slime or mud, easily escape notice. They have little affinity with true water beetles (Dytiscidae or Hydrophilidae) being more closely related to the Dascillidae, a member of which family was taken by A. M. Lea and myself (*Trans. Roy. Soc. S. Aust.*, 1919, p. 252) at Waratah, Tasmania, in company with *H. tasmanica* Blkb.

The following new species were taken by Messrs. Nicholson, in New South Wales, and F. E. Wilson and C. Barrett, in Victoria, the last mentioned naturalist taking them in considerable quantity, showing the great prevalence of a comparatively few species common to Tasmania, Victoria and alpine New South Wales. These are: *H. tasmanica*, *H. nicholsoni*, *H. simsoni* Grouv., *H. 4-plagiata* and *H. 9-notata*.

Of the other genera of the family I have seen only a single specimen of *Hydrethus* (described below) besides King's species, while the type of *Limnius 4-maculatus* King, being glued to a card, has not been examined as to its underside by me.

Table of Helmis (Dryopidae).

1. Upper surface black	2
Upper surface bronze	8
Upper surface with white or yellow maculae	9
2. Elytra regularly striate-punctate	3
Elytra with only three evident striae	<i>polita</i> King
	<i>punctulata</i> King
3. Elytral intervals more or less convex	4
Elytral intervals flat	5
4. Size large (5 mm. long) all intervals convex	<i>nicholsoni</i> , n. sp.
Size small (2 mm. long) sutural intervals, only, convex	<i>angusta</i> , n. sp.
5. Form widely ovate	6
Form elongate-ovate	<i>wilsoni</i> , n. sp.

6. Pronotum trisulcate *montana* King
 Pronotum nonsulcate 7
7. Prothorax widest at base *allynensis*, n. sp.
 Prothorax widest at middle *simsoni* Grouv.
8. Elytral intervals convex, colour blackish-bronze *metallica* King
 Elytral intervals flat, colour violet-bronze *aerata*, n. sp.
9. Size large, 5 mm. long *tasmanica* Blkb.
 Size smaller 10
10. Pale markings limited to elytra *quadriplagiata*, n. sp.
 Pale markings also on pronotum 11
11. Pronotum with elongate costae (more or less yellow) *pallidipes*, n. sp.
 Pronotum without such costae 12
12. Elytra with zig-zag fascia *v-fasciata* Lea
 Elytra with irregular marking (chiefly at base and shoulder) *novem-notata* King

HELMIS NICHOLSONI, n. sp.

Ovate, moderately convex, nitid black, antennae, coxae, tibiae and tarsi red.

Prothorax widest at basal third, thence obliquely and subsinuately narrowed to apex, more abruptly narrowed to base; anterior angles rounded, the posterior obtuse; base lightly bisinuate; sides explanate throughout; anterior part of disc forming a convex hood, divided from basal half by a wide Y-shaped depression, its stem not extending to base; on each side of this stem a tumid area; the whole pronotum strongly and rather closely punctate. *Scutellum* large and suborbicular. *Elytra* slightly wider than prothorax at base, humeral angle defined, sides nearly straight, slightly widest behind middle, thence rather sharply narrowed and feebly sinuate near apex, apical declivity moderately steep; striate-punctate, with large, squarish punctures occupying the whole striae and forming crenulations on their sides; striae and punctures continuous from base to apex, the punctures less defined near base and smaller near apex; intervals narrow and nitid, the sutural interval wider than the rest. Sternum and middle area of abdomen coarsely punctate, the sides of abdomen paler in colour and nearly smooth, apical segment with a fringe of pale hairs. *Dimensions*, 5×2 (vix) mm.

Habitat.—New South Wales: Mt. Kosciusko (A. J. Nicholson); Victoria: Fern Tree Gully and Warburton (F. E. Wilson).

Two examples taken with others by Mr. Nicholson, Lecturer in Entomology at the University of Sydney, after whom I name it, are readily distinguished from all described Australian species except *H. tasmanica* Blkb., by their larger size. From *tasmanica* it is separated by the absence of testaceous markings, its nitid surface and coarser sculpture. Mr. Nicholson also took *H. tasmanica* Blkb. at the same time, thus adding another link in the long chain of evidence showing zoological relations between Tasmania and Alpine Australia.

Type in the Macleay Museum.

VAR. *H. BICOLOR*.—Elytra tawny-yellow, save a wide sutural patch and a narrow marginal area black. Two examples taken by Mr. F. E. Wilson at Millgrove, Victoria, apparently differ only in colour from *H. nicholsoni*.

N.B.—The earlier spelling *Helmis* replaces *Elmis*.

HELMIS ALLYNENSIS, n. sp.

Wide and robust, moderately nitid black, antennae and tarsi red, underside fuscous, the medial area black.

Head finely, densely punctate, eyes large, round and flat. *Prothorax* very convex, widest at base, thence arcuately narrowed and "hooded" towards apex, base strongly bisinuate, lateral margins narrowly horizontal, forming a small acute angle at apex, posterior angles obtuse; disc evenly and densely punctate as on head.

Scutellum large and circular. *Elytra* considerably wider than prothorax at base, humeri tumid and rounded; sides subparallel, with a narrow horizontal margin; rather abruptly and obliquely narrowed at apex; striate-punctate, the striae fine and rather shallow, punctures in striae small and regular; intervals flat and very minutely asperate. *Prosternum* punctate, sides of metasternum and of abdomen opaque and finely asperate, apical segment of abdomen minutely, longitudinally striolate. Legs elongate, tarsi together as long as the tibiae. *Dimensions*, 3.5×2 (vix) mm.

Habitat.—New South Wales: Allyn River near Eccleston (Mr. Nicholson).

Two examples (probably the sexes) show a species intermediate in size between *H. nicholsoni* Cart., and *H. metallicus* King, with a much finer elytral sculpture than the former.

Type in Macleay Museum.

HELMIS AERATA, n. sp.

Short and wide, nitid violaceous-bronze, antennae yellow as to the two basal joints (rest wanting).

Head punctate, eyes not prominent. *Prothorax*: Apex sinuate, anterior angles rather acute and prominent, posterior rectangular; widest behind middle, sinuate in front of middle, straight behind, a very narrow horizontal margin (scarcely explanate); disc sparsely and coarsely punctate, a light transverse depression, chiefly noticeable at sides, anterior lobe less convex than usual, two oblique longitudinal sulci extending from base to the transverse depression about half-way between scutellum and sides. *Elytra* of same width as prothorax at its junction, widening at shoulders, widest behind middle; striate-punctate, the seriate punctures large, round and closer than in *H. wilsoni*, intervals flat, each with two more or less regular rows of smaller punctures. Underside smooth. *Dimensions*, 2 mm. long.

Habitat.—Victoria: Fern Tree Gully (C. L. Barrett).

A short, wide species more brilliantly metallic and with flatter elytra than *H. metallica* King.

Type in Coll. Wilson.

HELMIS ANGUSTA, n. sp.

Obovate, nitid black, antennae and legs red.

Head finely punctate, eyes large and prominent. *Prothorax* rather narrow, widest near base, sides arcuately converging to apex, apical third forming a convex hood, slightly projecting over head; base feebly bisinuate, lateral margins scarcely explanate, anterior angles acute, posterior widely obtuse; disc lightly and indistinctly punctate, a wide transverse sulcus at apical third and another, indistinct and interrupted, at basal third. *Elytra* wider than prothorax at base, widest behind middle, lightly striate-punctate; striae and punctures shallow, the latter rather small, intervals slightly wider than striae; both striae and intervals only well marked on sutural half, being obscured on the lateral half of each elytron by transverse ridges. Underside apparently impunctate. *Dimensions*, $2 (+) \times 1 (+)$ mm.

Habitat.—Victoria (Mr. Charles Barrett).

A single ♂ example sent by the well known Victorian naturalist is nearest *H. metallica* King in size and general appearance. It is, however, a narrower species, especially as to the prothorax; the upper surface, especially the pronotum,

is much less clearly punctured and the elytral sculpture is more irregular than in King's insect.

Type in Coll. Carter.

HELMIS PALLIDIPES, n. sp.

Oblong, glabrous, head and pronotum black, the latter with apex and raised parts yellow, elytra brown suffused with yellow, underside brown; legs and antennae testaceous; base of femora brown.

Head nearly as wide as apex of prothorax; eyes large, round and prominent. *Prothorax* about as wide as long, widest at base, thence lightly and obliquely narrowed to the front, becoming more convex anteriorly, the apex produced in the middle forming a hood; base feebly bisinuate, lateral margins narrowly raised, all angles acute, the anterior forming a minute tooth; disc embossed with four wide costate impressions partly interrupted, one on each side of and near the middle, extending from apex to near the base, the others consisting of two elongate pustules near margins; the depressed area very finely punctate. *Scutellum* large and circular. *Elytra* wider than prothorax at base, humeri tumid, sides parallel for the greater part, apices separately rounded, the margins yellow; striate-punctate, having rather large, round punctures arranged in pairs of rows, the alternate intervals clearly raised. Underside glabrous and impunctate; legs very long, combined tarsi longer than tibiae, the last joint longer than the rest combined. *Dimensions*, $2.5 \times 1 (+)$ mm.

Habitat.—New South Wales (Macleay Mus.); Queensland: Cairns district (A. M. Lea in the South Australian Museum).

One example in the Macleay Museum and nine from the South Australian Museum are labelled as above. The species is very distinct from all recorded Australian species by its pale testaceous legs, antennae, underside, and markings of the upper surface.

Type in the Macleay Museum.

HELMIS QUADRIPLAGIATA, n. sp.

Rather widely oval, convex; black, elytra with four large plagia of orange-red, two at base, two on apical declivity; antennae and tarsi red.

Head and pronotum finely and densely punctate. *Prothorax* widest in middle, anterior half more convex than the posterior; sides evenly rounded with a narrow horizontal margin, anterior angles scarcely defined, the posterior defined and obtuse; disc with two transverse sulci, the first behind the middle arcuate, with concavity pointing forward, the second straight close to base. *Scutellum* round. *Elytra* shortly obovate, wider than prothorax at base, greatest concavity in front of middle; lateral margin narrowly horizontal and minutely crenulated; striate-punctate, with rows of small punctures in well marked but narrow striae; intervals flat, wrinkled and minutely punctate; underside rather coarsely punctate; the abdomen longitudinally rugose. *Dimensions*, 3.4×1.5 mm.

Habitat.—Victoria: Fern Tree Gully, under stones (J. A. Kershaw), Monbulk (J. J. Walker), Belgrave, Beaconsfield and Wittlesea (C. Barrett); Tasmania: Nile River, Forester River and Interlaken (A. Simson).

Thirty-four examples examined from the National Museum, twenty-six from the South Australian Museum (Simson Coll.) and others from F. E. Wilson. Of the form and size of *H. simsoni* Grouv., but easily distinguished by the colour, as also by its finer sculpture, except where obscured by mud; apparently the commonest species in Tasmania and Victoria.

Type series in the National Museum.

HELMIS WILSONI, n. sp.

Elongate-ovate, black with a metallic gloss; legs and antennae yellow, apical joints of the latter infusate, underside yellowish-brown, paler at sides.

Head strongly punctate, eyes large and rather prominent; antennae: joints 1-2 very wide, 3 very slender, scarcely longer than 4, 4-10 sublinear lightly successively widening, 11 ovate-acuminate, wider than 10. *Prothorax*: Apex very convex, base truncate, sides slightly explanate, especially at angles, feebly rounded at middle, sinuate behind, scarcely so in front; anterior angles rounded, posterior rectangular, a deep and wide transverse depression in front of middle, anterior part convex, whole disc sparsely but distinctly punctate. *Elytra* wider than prothorax at base, widest behind middle; striate-punctate; the two first striae more plainly indicated than the others; seriate punctures large, shallow and round, separated by about the width of two punctures, intervals flat and finely punctate, with light transverse wrinkles. Underside impunctate. *Length*, 3 mm. (vix).

Habitat.—Victoria: Lorne (Mr. F. E. Wilson).

Two examples taken are nearest to *H. metallica* King, with the type of which I have compared it and which has a wider prothorax, less narrowed in front, elytral intervals convex. It is smaller and narrower than the species I take to be *H. simsoni* Grouv., which has a more coarsely and densely punctate pronotum.

Type in Coll. Wilson.

HYDRETIUS LEAI, n. sp.

Opaque-black above, legs and underside red, antennae with basal joints red, rest obfuscate, whole surface rather densely clad with short pilose clothing.

Head: Sculpture obscured by clothing, eyes large and prominent. *Prothorax* widest at base, gradually narrowing to apex, sides nearly straight without lateral foliation, apical area convex, rounded in front, posterior angles acute, discal surface showing small, close punctures somewhat obscured by derm, without transverse depression, two short longitudinal sulci near base towards sides. *Scutellum* large, oval. *Elytra* considerably wider than prothorax at base, shoulders tumid; striate-punctate, the striae clearly defined near suture; seriate punctures large and distant, finer in sutural series, becoming coarser outwards. Underside with close, short recumbent hairs. *Dimensions*, 3.5 mm. long.

Habitat.—Cairns district (A. M. Lea).

A single example, set on its side on a card, does not show the antennae very clearly; these are inserted at margin of eyes, the segments are not linear, the last four or five subclavate; the forecoxae are transverse, not globular. The species is near *H. (Lutrochus) australis* King, from which it differs as follows: Form shorter, surface smoother, more finely sculptured, less convex, the pronotum more pointed at apex, its hind angles sharper; elytra more ovate, less constricted at sides; also the spiny tufts of hair (?) round the periphery of the pronotum seen in *H. australis* are wanting.

Type in South Australian Museum.

Tenebrionidae.

Synonymy.

Bradymerus (Isostira) crenatus Pasc. = *B. granaticollis* Fairm. Herr Gebien has kindly sent me a plesiotype, from Banda Island, of Fairmaire's species, which is clearly identical with Australian examples of *crenatus* Pasc.

Bradymerus raucipennis Black. = *B. seriatus* Geb. A cotype of *seriatus* Geb. from New Guinea is identical with Blackburn's species, which I have from Yeppoon, Babinda, and Coen River (Queensland).

Ceropria maculata Geb. = *C. bifasciata* Cart. (nom. praeocc.) = *C. quadriplagiata* Geb. An example of *4-plagiata* Geb., sent by the author, is identical with *bifasciata* Cart., for which Herr Gebien provided the name *maculata* in Cat. Junk.

TRICHOSARAGUS GRANULATUS, n. sp.

Short, widely ovate, convex; elytra and pronotal foliation red or yellow; head, pronotum and underside brownish-black, appendages reddish-brown, the elytra clothed, at least at sides, with short, pale hairs.

Head strongly transverse, epistome truncate, minutely granulate, antennae short and pilose, joint 3 as long as 4-5 combined, the apical four segments forming a gradually enlarging club, 9 and 10 transverse, 11 forming a pointed arch. Prothorax convex, widest near base, arcuate-emarginate at apex, bisinuate at base, sides rounded, lateral foliation rather wide, directed obliquely downwards, all angles acute, margins black and crenulated by nodules; disc regularly clothed with small round shining nodules. Scutellum forming a short, wide lamina. Elytra less than twice as long as head and prothorax combined, slightly narrower than prothorax at base, each with about 17 longitudinal series of small, dark nodules, the 5th, 9th and 13th rows more prominent (containing larger nodules) than the rest. Prosternum granulose, mesosternum with wide triangular notch; abdomen with long recumbent pile; underside in general, the wide epipleurae in particular, minutely granulose, the latter margined by nodules; tibiae strongly serrated on outside especially the fore tibiae, mid and hind tibiae fringed with hairs and strongly spined at apex—four being perceptible on hind tibiae; tarsi with bristly clothing. Dimensions, 5.7 × 3.5-4 mm.

Habitat.—Australia (Blackburn Coll. in South Australian Museum), South Australia (in Macleay Museum).

Three examples examined, two from the South Australian Museum, and one (the smallest and less strongly granulated than the others) in the Macleay Museum. It is near *T. pilosellus* Blkb. in form and structure, but with two differences that may later be deemed to suggest generic separation namely, the shorter and stouter antennae, and the very different elytral sculpture. Type in South Australian Museum.

N.B.—I think now that the genus *Trichosaragus* more fitly belongs to the subfamily Opatrinae—not far removed from *Caedius*.

NOTOCERASTES (gen. nov. Bolitophaginarum).

Elongate-ovate, subdepressed, head of ♂ armed, narrowed in front of eyes, not deeply inserted in the prothorax, sulcate beneath; eyes ellipsoidal, prominent, undivided. Antennae not quite reaching base of prothorax, joint widely nodose, 2 smaller, cup-shaped, 3-8 subconic, 3 nearly as long as 4-5 combined, 9-11 widely oval, forming a loose club. Labrum straight in front, maxillary palpi long, labial very short, last segment of each subulate; mentum transverse ciliated. Prothorax subcordate, margins crenated; metasternum elongate, body winged; anterior and intermediate coxae globose; about as wide apart as in *Dipsaconia*, epipleurae also as in that genus. Three visible basal ventral segments about equal in length, the two apical narrower but equal *inter se*. Legs rather long, tibiae little enlarged, shortly spined at apex; tarsi pilose beneath.

A genus apparently near *Ilyxerus*; but with antennal club not "validam compressam" and having quite a different elytral sculpture.

NOTOCERASTES BLACKBURNI, n. sp.

♂. Elongate, parallel, opaque chocolate-brown, more or less clothed with a yellowish pilose derm, showing in thickened patches on elytra, giving a mottled aspect to surface; legs and antennae red.

Head armed with horns springing from the sides of clypeus immediately in front of eyes, these longitudinally flattened, slightly incurved at tips with a small angular enlargement on upper (or posterior) margin of each near apex. Head widest at eyes, its sculpture concealed by derm, clypeus nearly straight. *Prothorax* depressed (convex only at sides) widest near front, apex with discal part nearly straight, the anterior angles rather acutely produced; base weakly sinuate, a wide medial part produced a little backward, sides lightly arched and narrowed from near front to base, more abruptly narrowed to front angles; posterior angles defined and obtuse; margins finely crenate; disc (where visible) closely punctate beneath a short, pilose derm, a shallow medial sulcus enlarging into a wider depression at base and apex. *Scutellum* transverse, oval. *Elytra* considerably wider than the prothorax at base, and at least thrice as long; parallel, shoulders nearly square, surface somewhat obscured by derm in irregular patches; striate-punctate, with about 10 rows of close, deeply impressed striae, besides a short scutellary row; the punctures in striae close and rather large, the intervals sharply raised and themselves punctate. Underside clothed with short recumbent hairs, abdomen sparsely punctate, post tarsi short, the first and fourth subequal in length.

♀ with the clypeal horn replaced by a slightly raised angular process; the antennal club less pronounced. The only example before me is paler in colour and smaller than the two males. *Dimensions*, ♂ 9×2.7 and 7×2.5 mm.; ♀ 6×2.1 mm.

Habitat.—♂. Dividing Range (Blackburn Coll. in South Australian Museum). ♂. N.S.W.: Wagga (Macleay Museum). ♀. Victoria: Melbourne (Ejnar Fischer in South Australian Museum).

Three examples labelled as above, the first having an attached note on its diagnosis in the handwriting of the late Canon Blackburn, after whom I name it.

Type in the South Australian Museum.

N.B.—The monotypic *Ilyxerus asper* Pasc. has never been identified in our collections. It would appear to be the nearest ally to *Notocerastes*.

The *Ulodes-Dipsaconia* group are very doubtfully separable from the Bolitophaginae, though Gebien has followed Pascoe in making a separate sub-family Ulodinae.

LYPHIA GRANDIS, n. sp.

Elongate, subcylindric, nitid castaneous.

Head densely and finely punctate, antennae very short, the apical four segments strongly transverse. *Prothorax* convex, as long as wide, apex rounded, slightly advanced in middle, base and sides nearly straight, anterior angles depressed and rounded, posterior obtuse; sides and base with a very narrow raised border, disc finely and uniformly punctate like the head; without foveae or medial line. *Scutellum* rather large, triangular. *Elytra* about as wide as prothorax at base, and two and a half times as long, whole surface irregularly punctate, but

seriate punctures discernible in subobsolete striae—these shown as darker lines. Underside finely and closely punctate, legs short, tibiae enlarged at apex. *Dimensions*, 7×2 (+) mm.

Habitat.—Queensland: Endeavour River (Macleay Museum).

Two examples labelled as above in the Macleay Collection show a species that is a giant compared with the two recorded (*australis* Geb. and *tasmanica* Champ.).

Type in the Macleay Museum.

ULOMA LATIOR, n. sp.

♂. Widely oblong, nitid black, oral organs, antennae, legs, coxae, epipleurae and parts of prosternum red.

Head short and wide, closely and finely punctate, eyes small, antennal orbits not prominent, joints 7-10 of antennae successively widened and closely compressed, 11 widely oval. *Prothorax*: Apex arcuate, base nearly straight, sides nearly straight on basal half, arcuately narrowing on front half, widest in front of middle; anterior angles defined and widely obtuse, posterior subrectangular; disc minutely and rather sparsely punctate, an oval depression near apex at middle. *Scutellum* rather small, arcuate-triangular. *Elytra* of same width as, and closely adapted to, prothorax; parallel for two-thirds of their length, widely rounded at apex; striate-punctate, with fine punctures almost concealed in fine, clear-cut striae; intervals flat and impunctate. *Prosternum* strongly, longitudinally rugose, meso- and metasterna clearly punctate, abdomen strigose; fore tibiae lightly curved, sparsely spinose, enlarged on apical half, abruptly narrowed in middle, mid tibiae less curved and spinose; hind tibiae straight, with margins entire.

♀ without pronotal impression, fore tibiae uniformly widened to apex and less curved. *Dimensions*, ♂ 9×4 (+) mm.; ♀ 10 (-) $\times 4.2$ mm.

Habitat.—New South Wales: Kurrajong (Mr. Masters).

Two examples in the Macleay Museum are strikingly different in their ratio of length to breadth, from any other Australian species known to me. The prothorax is also much longer in proportion to the elytra than in *U. sanguinipes* F. (*laticornis* Pasc.). Thus, compared with a typical example of the latter, the dimensions of which are 11×4.2 mm., I find the following comparison: Ratio of length of pronotum to length of elytra, 3:7.5 (*sanguinipes*), 3:5.5 (*latior*); ratio of length to width of whole insect, 11:4.2 (*sanguinipes*), 9:4 (*latior*). Other distinctions from *sanguinipes* are the finer punctures of the pronotum and the flatter interstices of the elytra.

Type in the Macleay Museum.

ULOMOIDES MACLEAYI, n. sp.

♂. Red, the elytra with a darker irregular stain, short, depressed.

Head finely and closely punctate, its suture clearly impressed, antennae moderately long, 4-10 cupuliform, gradually widening to apex, 11 globular. *Prothorax*: Apex arcuate, base bisinuate, widest at middle, sides evenly rounded, anterior angles wide and lightly rounded off, the posterior subrectangular, margins very narrow (unseen from above), surface, like the head, finely and closely punctate, two elongate depressions near base. *Scutellum* triangular with rounded sides. *Elytra* of same width as prothorax at base, widening to the middle, apex rather widely rounded; striate-punctate, the striae not deeply impressed, seriate punctures small, regular and close (about the width of a puncture between each pair), intervals quite flat and microscopically punctate. Underside minutely

punctate, fore and mid tibiae not serrate on the upper margin, hind and mid tibiae finely serrated on the lower margin, the hind tibiae with a subangular enlargement near the middle, followed by a hollowing of the lower margin.

♀ with mid and hind tibiae scarcely serrated on inside, hind tibiae not enlarged or hollowed. *Dimensions*, 5×2 mm.

Habitat.—North-west Australia (Macleay Museum).

Three examples in the Macleay Collection show a species near *Ulomoides humeralis* Blkb., in its short, flat form, carinate tibiae, the latter unarmed externally. Besides its larger size it may be distinguished from *U. humeralis* (of which a cotype is before me) by its evidently coarser punctures of the pronotum, and the wider antennal segments.

Type in the Macleay Museum.

PLATYDEMA MACLEAYI, n. sp.

Oval, very convex; head, pronotum, elytral fascia and apex, underside and appendages red, remaining area of elytra black.

Head minutely punctate, eyes large, each eye nearly as wide as space between eyes, antennae sub-moniliform, less widened apically than usual. *Prothorax*: Apex nearly straight, base feebly bisinuate, sides lightly and arcuately converging from base to apex, anterior angles depressed and widely rounded, posterior angles acute, disc not perceptibly punctate, with two basal, linear, foveae. *Scutellum* triangular. *Elytra* widely oval, as wide as prothorax at base, widest at middle, apex widely rounded, a premedial yellow fascia, widely interrupted at suture and extending to sides, apex widely red; striate-punctate, having rather large punctures placed in clear-cut striae; intervals a little convex and impunctate. Underside lightly striolate. *Dimensions*, $3.3-5 \times 1.5-1.7$ mm.

Habitat.—Queensland: Kuranda (Dr. E. W. Ferguson and the Macleay Museum).

Three examples examined—two from the Macleay Museum, one long ago given me by Dr. Ferguson in my collection.

In my table (These Proc., 1917, p. 702) it would stand near *P. aries* Pasc., a much larger species having the pronotum and extreme apex of elytra black. It is very distinct from the oblong and depressed *P. bicinctum* Champ.

Type in the Macleay Museum.

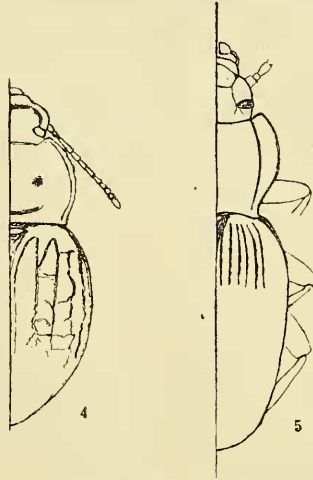
Platydema pascoei MacL. = *P. victoriae* Blackb.—I have lately examined Macleay's type and find that it is not synonymous with *P. tetraspilotum* Hope, as stated by Champion (*Trans. Ent. Soc. Lond.* 1894, p. 373), but is the species described by Blackburn in 1893 as *P. victoriae*, which name must therefore be sunk. It is probably the commonest Tenebrionid in Australia that I have found in quantity under dead Eucalyptus boughs from Victoria to North Queensland. *T. tetraspilotum* Hope I have only found under Eucalyptus bark.

NYCTOZOILUS MACLEAYI, n. sp. (Text-fig. 4.)

Elongate-ovate, opaque black above, subnitid beneath, antennae and tarsi reddish.

Head densely punctate, labrum prominent, clypeus truncate in front, its sides oblique, meeting the antennal orbits at a wide angle, the latter arcuately raised; antennae nearly reaching base of prothorax, 3 nearly as long as 4-5 combined, apical four wider than the rest. *Prothorax* rather flat, apex strongly emarginate, the anterior angles acute and directed forward; base subtruncate, widest behind

middle, thence arcuately converging in front, rather abruptly sinuate behind, the posterior angle forming a subacute tooth; lateral margins feebly and irregularly crenulate; extreme border rather thick and reflexed, the adjacent area moderately concave; disc closely and distinctly punctate, with two foveate depressions near middle, an arcuate transverse sulcus between these and the base, and a short smooth medial line between the foveae, the foveae, medial laevigate mark and transverse sulcus forming a comical caricature of an animal's face. *Scutellum* widely transverse. *Elytra* elongate-obovate, as wide as prothorax at base, soon



Text-figures 4-5.

4. *Nyctozoilus macleayi*, n. sp.5. *Cardiothorax scxsulcatus*, n. sp.

widening to the rounded shoulders, widest behind middle; reticulate-punctate, scarcely costate (three irregularly undulate raised lines almost continuous from base to apical declivity) with transverse impressions forming irregular reticulations, the intervening areas everywhere showing large round punctures, with the usual lateral row of larger punctures bounded externally by a narrow lightly reflexed border; gular region coarsely, sternal area strongly, abdomen finely, punctate. *Dimensions*, 15 × 7 mm.

Habitat.—New South Wales: Coonabarabran.

A single ♂ example in the Macleay Museum bears a locality label in the handwriting of the late Mr. G. Masters and adds another distinct species to a large genus, of which the individuals are often rare. Mr. T. G. Sloane and I collected assiduously in this district in Nov., 1923, without meeting it. It should stand in my table near *N. irregularis* Blackb.

Type in the Macleay Museum.

HYPAULAX PYGMAEUS, n. sp.

Ovate; head and pronotum subopaque, elytra and underside nitid black.

Head and pronotum microscopically punctate,* epistoma evenly arcuate, antennal orbits wide, little raised and lightly sinuate anteriorly; antennae short,

* Minute punctures just perceptible with a Zeiss binocular.

1-7 oval, 8-10 increasingly transverse, 11 oblong-ovate, twice as long as 10. *Prothorax* widest in front of middle, apex produced in middle, base truncate, anterior half of sides (including the depressed angles) widely rounded, posterior half sinuately converging to the obtuse posterior angles; lateral margins entire, extreme border very narrow (without interior sulcus), basal border slightly wider. *Scutellum* small, triangular. *Elytra* wider than prothorax at base, obtuse humeral angle sharply defined; sulcate-punctate, the seriate punctures half concealed in deep sulci; intervals convex and impunctate; underside of head and prosternum finely and densely punctate; abdomen very minutely so; legs and tarsi shorter than usual, the latter clothed with fawn-coloured tomentum. *Dimensions*, 9-10 × 3.5-4 mm.

Habitat.—Northern Territory (Port Darwin).

A pair, probably the sexes, in the Macleay Museum are the only specimens I have seen. About the same length as, but narrower than *H. nanus* Cart., the elytral sculpture is nearest that of *H. ovalis* Bates, but the sulci are more pronounced, the seriate punctures more concealed than in that species.

Type in Macleay Museum.

CARDIOTHORAX SEXSULCATUS, n. sp. (Text-fig. 5.)

Head and pronotum bronze-black, elytra bronze, underside black, whole surface nitid.

Head: Epistoma widely triangular, the usual frontal impression with a few punctures near centre; basal half of antennae nitid, apical half opaque and reddish. *Prothorax* widest in front of middle, front angles rather sharply rounded, sides strongly and arcuately converging behind, with a wide sinuation preceding the acute dentate hind angle, this directed obliquely outward, and slightly reflexed at tip; base bisinuate with a backward curve towards the posterior angles; foliate margins wide for the greater part (with about three setae on each), strongly narrowed near base, a defined separating sulcus; extreme border narrowly reflexed, disc smooth (in one example two small foveate punctures near base), deep medial sulcus not quite reaching base. *Scutellum* small, triangular. *Elytra* considerably wider than prothorax at base, shoulders well rounded, epipleural fold evident; each with six deep sulci, intervals convex and impunctate, the 5th interval slightly wider than the rest, the lateral area showing three scratch-like striae. Underside impunctate. *Dimensions*, 18-18.5 × 6.5-7 mm.

Habitat.—New South Wales: Barrington Tops (Mr. J. Hopson).

Mr. Hopson has lately sent two examples, both I think ♀, of a species that is quite distinct from the other four species peculiar to this prolific district. In general facies it is nearest *C. hopsoni* Cart., which, however, has eight distinct sulci on each elytron, flatter intervals, pronotum with narrower foliation, the posterior sinuation much less marked, *inter alia*. *C. nasutus* Cart. and *C. harrisoni* Cart., which also have six sulcate elytra, are otherwise distinct, notably in the absence of defined posterior dentation of the pronotum.

Type in Coll. Carter.

OMOLIPUS NITIDUS, n. sp.

Elongate-oblong, convex. Head, pronotum, underside and legs black, elytra dark olive-green, its suture faintly purple, antennae and tarsi reddish, whole surface very nitid.

Head minutely and sparsely punctate, front outline from eye to eye forming almost a complete semicircle, antennae having the five apical segments successively widened. *Prothorax* narrower than usual, about as long as wide, sides very lightly widened, slightly advanced in the middle; anterior angles depressed and obtuse, the posterior rectangular, lateral margins evident from above, a transverse sulcus near base; an oval depression in front of this at middle, two small foveate punctures on disc, this very nitid and minutely punctate. *Scutellum* small. *Elytra* slightly wider than prothorax at base, sides subparallel to basal third, thence converging to a somewhat pointed apex; disc very finely striate-punctate, the striae bearing minute, shallow, distant punctures. Underside almost impunctate. *Dimensions*, 9×3 mm.

Habitat.—Queensland: Blackall Ranges (F. E. Wilson).

A single ♂ example is very distinct from its congeners by its parallel, sub-cylindric form, brilliantly nitid surface and extremely faint sculpture. In the last character it is nearest *O. laevis* Pasc., which belongs to the widely ovate section (Group i of my Tabulation, these Proc., 1915, p. 535); while in structure and form it is nearest to *O. angustus* Cart. of Group ii.

Type in Coll. Wilson.